



# Lake Erie Harmful Algal Bloom Bulletin

01 July, 2019, Bulletin 01

## Analysis

Satellite imagery from 6/28 shows cyanobacteria is present in Lake Erie's western basin, touching the shoreline of Maumee State Park and extending 6 miles offshore from Maumee Bay. Recent sampling (6/17) indicates measured toxin concentrations are below detectable limits throughout the bloom extent. A cyanobacteria bloom of *Planktothrix* is present in- and spilling out of Sandusky Bay. No other blooms are present in Lake Erie.

## Forecasts

Winds forecast (3-11 kn) today through Thursday (7/1-3) will create the potential for slight mixing and promote northwest movement of surface *Microcystis* concentrations. —Keeney, Jima

## Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>

Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>

NOAA's GLERL provides additional HAB data here: [http://www.glerl.noaa.gov/res/HABs\\_and\\_Hypoxia](http://www.glerl.noaa.gov/res/HABs_and_Hypoxia)

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

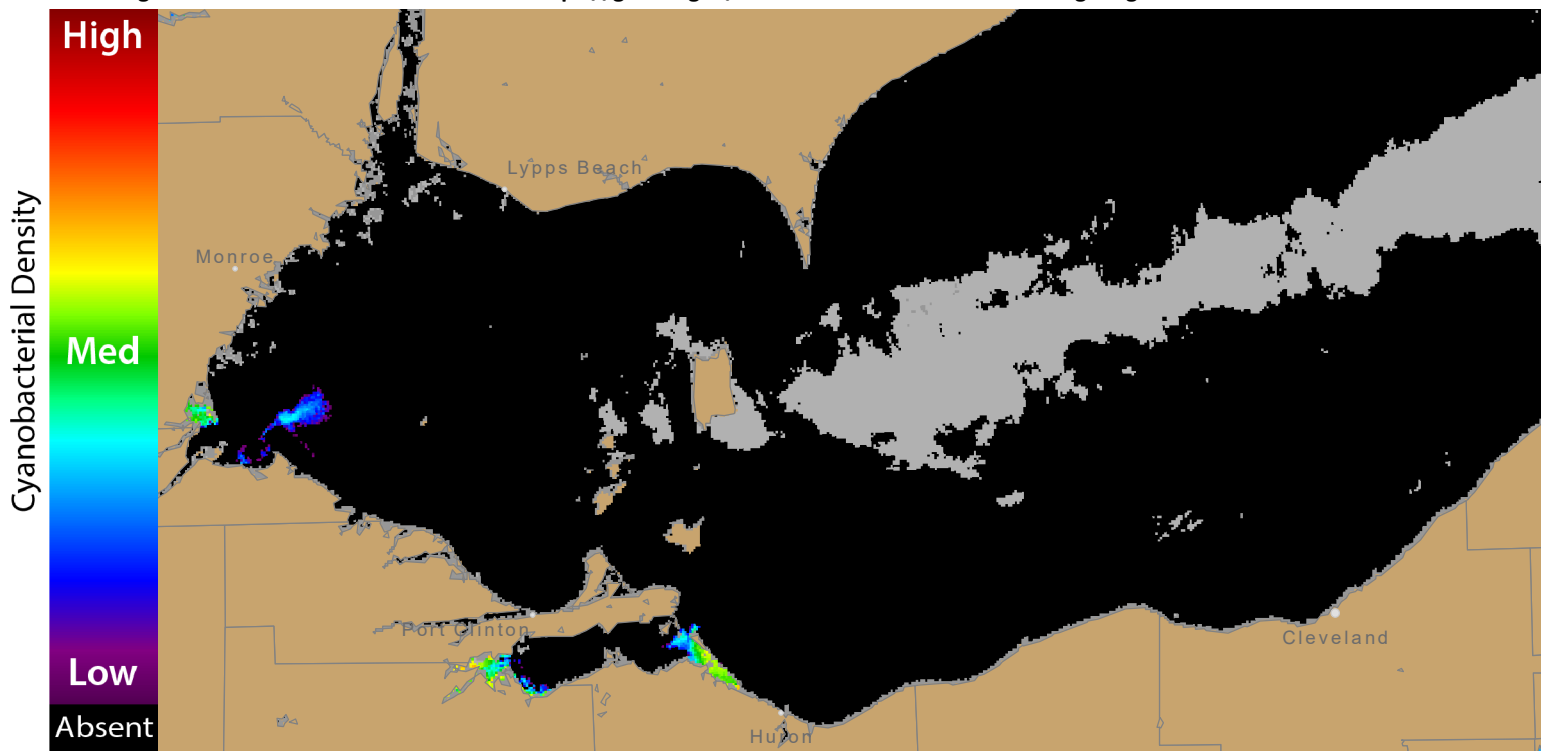


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 28 June, 2019 at 12:01 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/ml

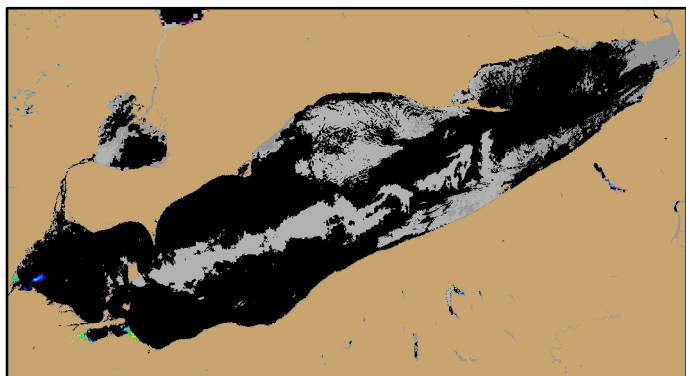
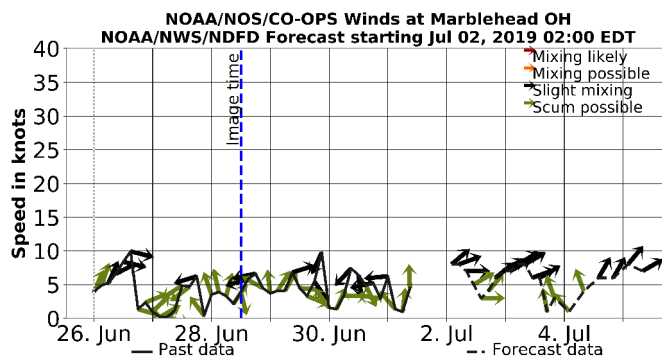


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 28 June, 2019 at 12:01.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>



Figure 3. Nowcast position of bloom for 01 July, 2019 using LEOFS modelled currents to move the bloom from the 28 June, 2019 image.

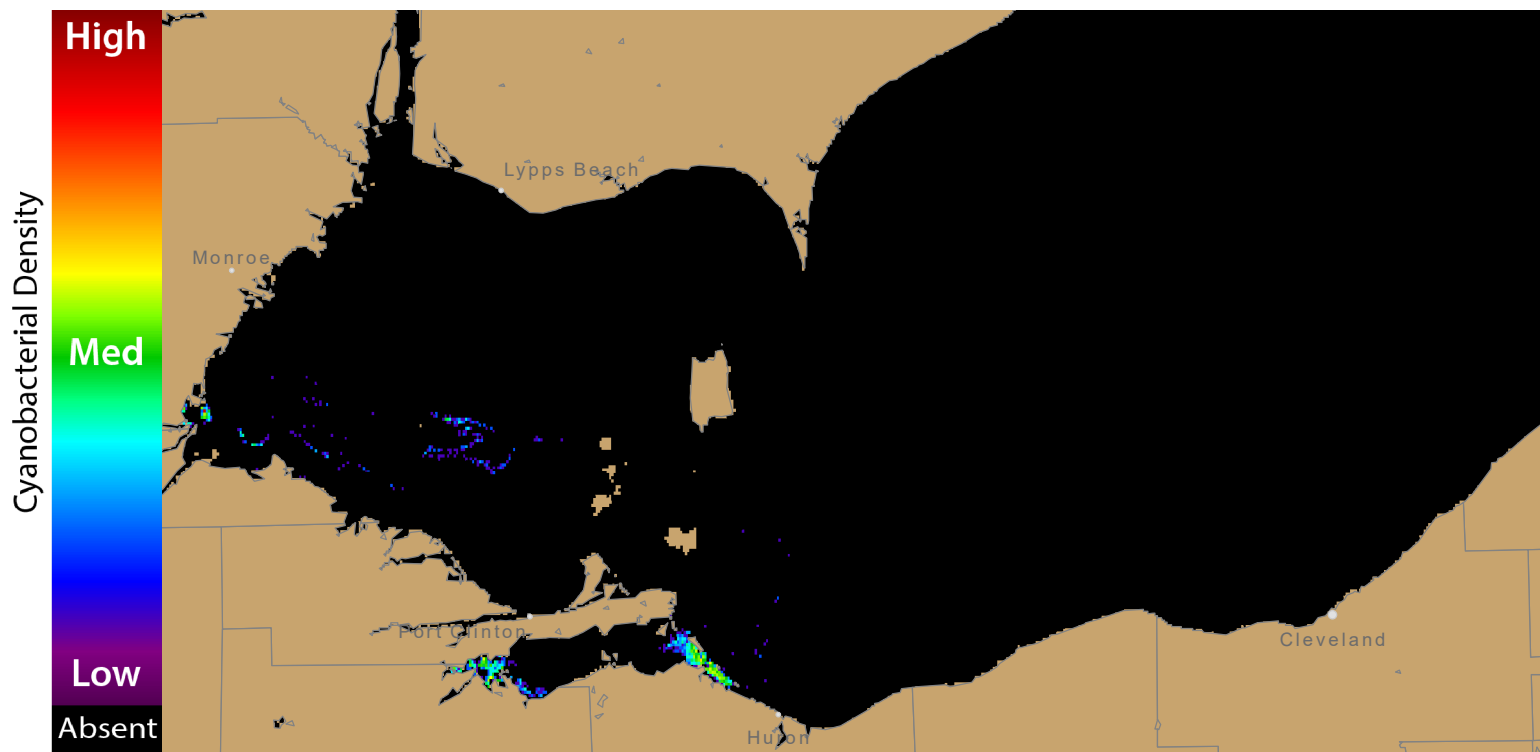
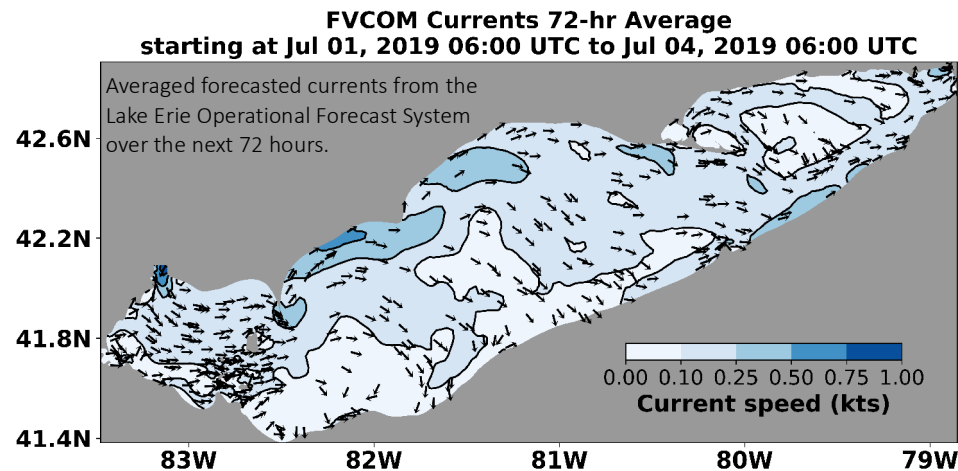


Figure 4. Forecast position of bloom for 04 July, 2019 using LEOFS modelled currents to move the bloom from the 28 June, 2019 image.



For more information and to subscribe, please visit the NOAA HAB Forecast page:  
<https://tidesandcurrents.noaa.gov/hab/lakeerie.html>